



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,106	03/26/2004	Peter D. Lee	58632US004	6665

32692 7590 06/28/2005

3M INNOVATIVE PROPERTIES COMPANY

PO BOX 33427

ST. PAUL, MN 55133-3427

EXAMINER

MITCHELL, TEENA KAY

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/809,106	Applicant(s) LEE ET AL.	
	Examiner Teena Mitchell	Art Unit 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/16/04; 9/29/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the visor formed separately from the side wall, detachable visor, portable supply of breathable air, turbo unit including a fan driven by a battery powered motor and a filter, a remote source of breathable air must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1–6, 10, 12, 18, 19, 26-31, 34, 35, 39, 44, 45, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Depping (3,413,972).

With respect to claim 1, Depping discloses a respirator hood (10) to be worn on the head of a user to provide a supply of breathable air to a face region of the user (Fig.4), the hood having an air chamber (126) arranged in an upper portion to extend over and above the head of a user (Fig. 4), the air chamber having an air inlet (at 79) connectable to a source of breathable air (50) and an outlet (at 138) arranged to deliver breathable air to a face region of the user (Fig. 4), wherein the air chamber (126) defines a collapse-resistant air duct between the inlet and the outlet (Fig. 4).

With respect to claim 2, Depping discloses wherein the air chamber covers substantially the whole of the region of the hood above the head of the user and provides support at the perimeter of the hood for a visor (70) that covers at least the face of the user (Fig. 4).

With respect to claim 3, Depping discloses wherein the visor (70) is restricted to the face region of the user only (Figs. 1, 2, 4).

With respect to claim 4, Depping discloses wherein the visor extends around the head of the user to enclose fully of the head (70).

With respect to claim 5, Depping discloses wherein the visor comprises a transparent portion of the hood through which the user can see (Figs. 1, 2, 4).

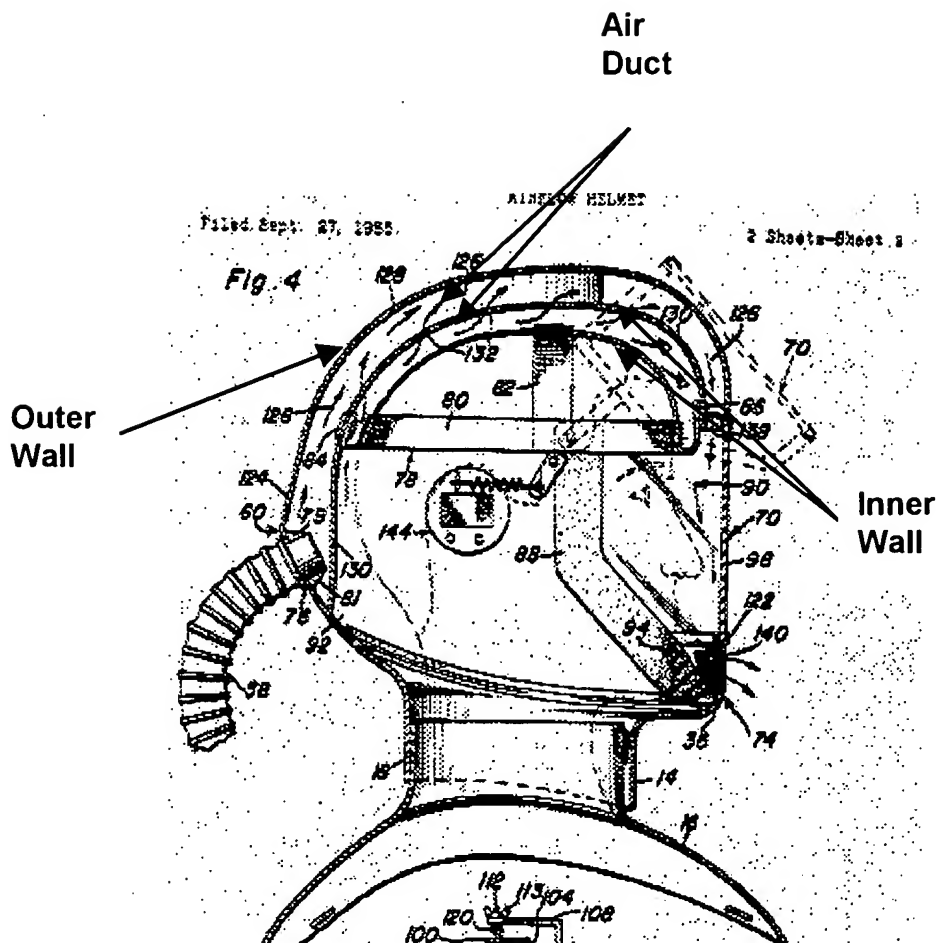
With respect to claim 6, Depping discloses wherein the visor forms at least part of a side wall of the hood (70; inasmuch as the visor is part of the air chamber it inherently forms at least part of a side wall of the hood; Figs. 1, 2, 4).

With respect to claim 10, Depping discloses wherein the air chamber comprises an outer wall of the hood and an inner wall secured to the outer wall around a perimeter edge of the hood to define the air duct there between (see illustration of Fig. 4 below).

With respect to claim 12, Depping discloses wherein the outer wall and inner wall are shape stable (Fig. 4).

With respect to claim 18, Depping discloses wherein the outer wall is a top wall of the hood (Fig. 4).

With respect to claim 19, Depping discloses wherein the top wall and inner wall of the air chamber are permanently secured together (Fig. 4).



With respect to claim 26, Depping discloses wherein the top wall and inner wall of the air chamber are secured together around the perimeter of the hood and are spaced apart inwardly of the perimeter (Fig. 4).

With respect to claim 27, Depping discloses wherein the air duct (at 126) extends across the whole area of the hood above the head of the user and is not confined to the peripheral edge region of the hood (Fig. 4).

With respect to claim 28, Depping discloses wherein the top wall and inner wall of the chamber are provided with smooth internal surfaces shaped to direct the flow of air from the inlet to the outlet without any sharp or sudden changes in direction (Fig. 4).

With respect to claim 29, Depping discloses wherein the inlet opens into the air chamber to assist the air flow to spread out within the air chamber (Fig. 4).

With respect to claim 30, Depping discloses wherein the top wall and inner wall of the chamber are dome-shaped to provide the upper portion of the hood with a recessed area open to the underside over the head of the user (Fig. 4).

With respect to claim 31, Depping discloses wherein the inlet and outlet are provided on opposite sides of the dome-shaped portion of the inner wall (Fig. 4).

With respect to claim 34, Depping discloses wherein the outlet comprises at least one elongate slot (Fig. 4).

With respect to claim 35, Depping discloses wherein the outlet comprises a plurality of slots (132).

With respect to claim 39, Depping discloses wherein the outlet is formed in a portion of the air chamber that is inclined to direct the air flow away from the face region of the user (Fig. 4).

With respect to claim 44, Depping discloses wherein the source of breathable air is a portable supply carried by the user (Figs. 2, 3).

With respect to claim 45, Depping discloses wherein the portable source is a turbo unit (50) including a fan driven by a battery powered motor and a filter (Col. 3, lines 3-34).

With respect to claim 47, Depping discloses a respiratory hood (10) to be worn on the head of a user to provide a supply of breathable air to a face region of the user (Fig. 4), the hood having an air chamber (at 126) in an upper portion above the head of the user (Fig. 4), the air chamber having an upper wall and a lower wall defining an air duct there between (Fig. 4), the lower wall having an inlet (at 79) connectable to a source of breathable air (50) and an outlet (at 138) for delivery of breathable air to a face region of the user wherein at least one of the upper and lower walls has a stable profile to maintain the shape of the air duct (Fig. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7-9, 11, 13-17, 20-25, 32, 33, 36-38, 40-43, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Depping (3,413,972).

The difference between Depping and claim 7 is the visor formed integrally with the side wall. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the visor integrally with the side wall, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. In re Larson, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

With respect to claims 8 and 9, note rejection of claim 7 above.

With respect to claim 11, Depping does not disclose the outer and inner walls are made of transparent or translucent material. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the outer and inner

Art Unit: 3743

wall of a transparent or translucent material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design consideration. One would look to making the outer and inner walls of transparent or translucent material because it would allow the user a better visual field. In re Leshin, 227 F.2d, 197, 125 USPQ 416.

With respect to claims 13-17, note rejection of claim 11 above.

With respect to claims 20-24, note rejection of claim 7 above.

With respect to claim 25, Depping discloses wherein an air supply line is connectable to the inlet within the hood (58).

With respect to claim 32, Depping does not disclose the inlet at the rear and the outlet at the front of the dome-shaped portion of the inner wall. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the inlet at the rear and the outlet at the front of the dome-shaped portion of the inner wall, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

With respect to claims 33 and 36, note rejection of claim 32 above.

With respect to claim 37, Depping does not disclose the holes all the same size. Applicant has not disclosed that having the holes all the same size provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the holes any size because they would still provide flow of air to a user.

Therefore, it would have been an obvious matter of design consideration to modify Depping to obtain the invention as specified in the claim.

With respect to claims 38, 40-41, note rejection of claim 37 above.

With respect to claims 42 and 43, note rejection of claim 7 above.

With respect to claim 46, note rejection of claim 37 above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The balance of art is cited to show hood devices: 2,296,338; 566,557.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teena Mitchell whose telephone number is (571) 272-4798. The examiner can normally be reached on Monday-Friday however the examiner is on a flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on (571) 272-4791. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3743

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Teena Mitchell
Examiner
Art Unit 3743
June 23, 2005